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FOREST INSECT AND DISEASE MANAGEMENT

Technology Update

Southeastern Area, State and Private Forestry, 1720 Peachtree Road, N.W., Atlanta, Ga. 30367

Southern Pine Beetle Fact Sheet Number 15

SALVAGE REMOVAL¹

Managers and owners usually prefer salvage removal over the other control options because infested trees are removed from the forest and used, giving the landowner some financial return. However, salvage of individual spots is not always possible because of inaccessibility, insufficient volume, poor lumber or pulpwood market, and sensitive environmental constraints. Additionally, salvage removal often takes longer to implement than alternative tactics.

For effective salvage, material infested by the southern pine beetle (SPB) must be removed on a timely basis. An adequate buffer strip of uninfested green trees must also be cut around the spreading edges of the spot. Doing this ensures the removal of freshly attacked pines that were overlooked or became infested after the spot was first ground-checked and marked.

When to Act

Suppression should be a year-round effort made from late spring through fall to control actively spreading infestations. Winter and early spring treatment is also important because it will reduce the potential for spot growth or new spot development later in the spring and summer. Although infestations are concentrated in fewer trees for longer periods of time during the colder months, the spots are harder to detect from the air.

¹ See Southern Pine Beetle Fact Sheet No. 3 Setting control priorities for the southern pine beetle.

Procedures for Salvage Removal

1. Identify the spreading head(s) of the spot. The head(s) contain the trees that have been recently attacked. They may have green or fading foliage, fresh pitch tubes, boring dust in bark crevices or on the foliage of the understory vegetation, tight bark, and adult checkered beetles on the bark.

2. Mark all SPB-infested trees or a boundary around them if there are many trees.

3. If recently attacked trees are present, mark a horseshoe-shaped buffer strip of green uninfested trees around the head(s). The buffer should surround the recently attacked ones. A strip 40 to 70 feet wide (12.1 to 21.3 m) will be needed for most active spots, while a 100-foot (30.4 m) strip (and occasionally larger) may be needed for large, rapidly expanding spots. As a rule, the width of the buffer should not exceed the average height of the trees in the spot. When a spot has 10 or fewer infested trees, none of which are freshly attacked, it usually should not be treated.

4. Salvage removal of infested and bufferstrip trees should begin as soon as possible after ground checking and marking the spot. Vacated trees (without beetles) can be left standing because their removal will not contribute to beetle control. But they can be salvaged if they have not deteriorated and the additional volume is needed to make the salvage removal economically feasible. Choosing which trees to salvage first depends on the season. The following priorities, in order of importance, should be followed in salvage removal:

May–October

- a) Trees in the buffer zone
- b) Trees with fresh attacks
- c) Remaining trees with living brood
- d) Vacated trees

November–April

- a) Remaining trees with living brood
- b) Trees with fresh attacks
- c) Trees in the buffer zone
- d) Vacated trees

5. Infested trees should not be decked next to green timber because emerging beetles may attack adjacent green trees.

6. Check salvaged spot for breakouts² during the next aerial survey. Treat breakouts as needed.

Other Options

The landowner's management objectives affect the choice of one or several treatment methods. Recommended treatment methods not discussed in this fact sheet include cut-and-leave, chemical control, and pile-and-burn. SPB Fact Sheets 16, 17, and 18 discuss these three methods, respectively.

This fact sheet is based on information in Agricultural Handbook Number 575, **Direct Control Methods for the Southern Pine Beetle**, by Kenneth Swain, Sr., USDA Forest Service and Michael Remion, South Carolina State Commission of Forestry. The handbook will be published in 1981.

² When SPB emerging from a treated spot attack neighboring trees, this new infestation is known as a breakout.

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